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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/504,395	02/24/2005	Kevin Ronald McWilliams	CES-72	3613

7590 10/28/2005

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EXAMINER

PAIK, SANG YEOP

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/504,395

Applicant(s)

MCWILLIAMS, KEVIN RONALD

Examiner

Sang Y. Paik

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/11/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the abstract is too long. Correction is required. See MPEP § 608.01(b).
2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

3. Claims 3 and 7 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 3 and 7 which recite the ratio that is fixed and variable is already recited in claim 2 which recites for the "fixed or varying ratio".

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 3742

5. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 10, it is unclear which of the duty cycles of the maximum duty cycle and the minimum duty cycle as recited in claim 1 is referred by the second heating element being energized with "100 percent duty cycle" and the first second heating element at "80% duty cycle".

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-7, 11 and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Schilling et al (US 5,396,047).

Schilling shows an electric heater assembly comprising a first heating zone (4), a second heating zone (5), each with a heating element, a first cyclic energy controller relay (24), a second cyclic energy controller relay (23), each capable of operating independently or together, the first cyclic energy controller controlling the power of the first heating element at a predetermined setting between a maximum and minimum duty cycle/wave and at the selected full power, the second cyclic energy controller energizes the second heating element at the maximum duty cycle with the first cyclic energy controller to energize the first heating element less than the maximum duty cycle providing less than maximum power in the first heating zone. Schilling further

Art Unit: 3742

teaches that a predetermined fixed or varying ratio of the duty cycle/wave is set between the first and second cyclic energy controller in a temperature-dependent manner which determines a high and a low power setting. Also see column 7, lines 5-66.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schilling et al (US 5,496,047).

Schilling shows the assembly claimed except the claimed varying ratio to meet the claimed power setting.

Schilling teaches that the heating elements are controlled so that in order to reach a set temperature, the electric power is supplied is regulated down and up to meet the desired temperature (see column 6, lines 57-69). Schilling further teaches that the set ratio of the cycle/wave provides the power range of the heating unit. Thus, it would have been obvious to one of ordinary skill in the art to vary the ratio of the cycle from an initial setting to any desired duty cycle settings to obtain the desired heating temperature since the fixed or varying ratio would be determine active of the power settings.

With respect to claim 10, while Schilling does not show the second heating element energized with 100 percent duty cycle while the first heating element at 80% duty cycle, Schilling teaches that it is desirable provide a more duty cycle to a cooler region than a hot

Art Unit: 3742

region to generate a desired uniform heating distribution across its heating surface. Thus, it would have been obvious to one of ordinary skill in the art to provide the heating elements with the claimed duty cycle arrangement or any other arrangement in order to provide an uniform heat transfer to cooking vessels or pans.

10. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schilling et al (US 5,496,047) in view of Well, Jr et al (US 4,786,799).

Schilling shows the assembly claimed except the microprocessor-based control system.

Well shows a microprocessor-based control system to control the cyclic energy controllers such as the triacs/relays. Well further shows a manual input selection means to manually and selectively control the heating system.

In view of Well, it would have been obvious to one of ordinary skill in the art to adapt Schilling with the microprocessor with the manual input means to selectively control the power input of the individual heating elements.

11. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schilling et al (US 5,496,047) in view of McWilliams (US 4,393,299) or Gossler (US 4,347,432).

Schilling shows the assembly claimed except the thermal insulation wall.

McWilliams or Gossler shows that it is well known in the art to provide a thermal insulation wall between individual heating zones. In view of McWilliams or Gossler, it would have been obvious to one of ordinary skill in the art to adapt Schilling with a thermal insulation wall to divide heating zones to better control its respective heating surfaces with a more accurate heating temperature.

Art Unit: 3742

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Y. Paik whose telephone number is 571-272-4783. The examiner can normally be reached on M-F (9:00-4:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. R. S.

Sang Y Paik
Primary Examiner
Art Unit 3742

syp